

Fig.A.5.1 Band Edges (802.11b, Ch 1)

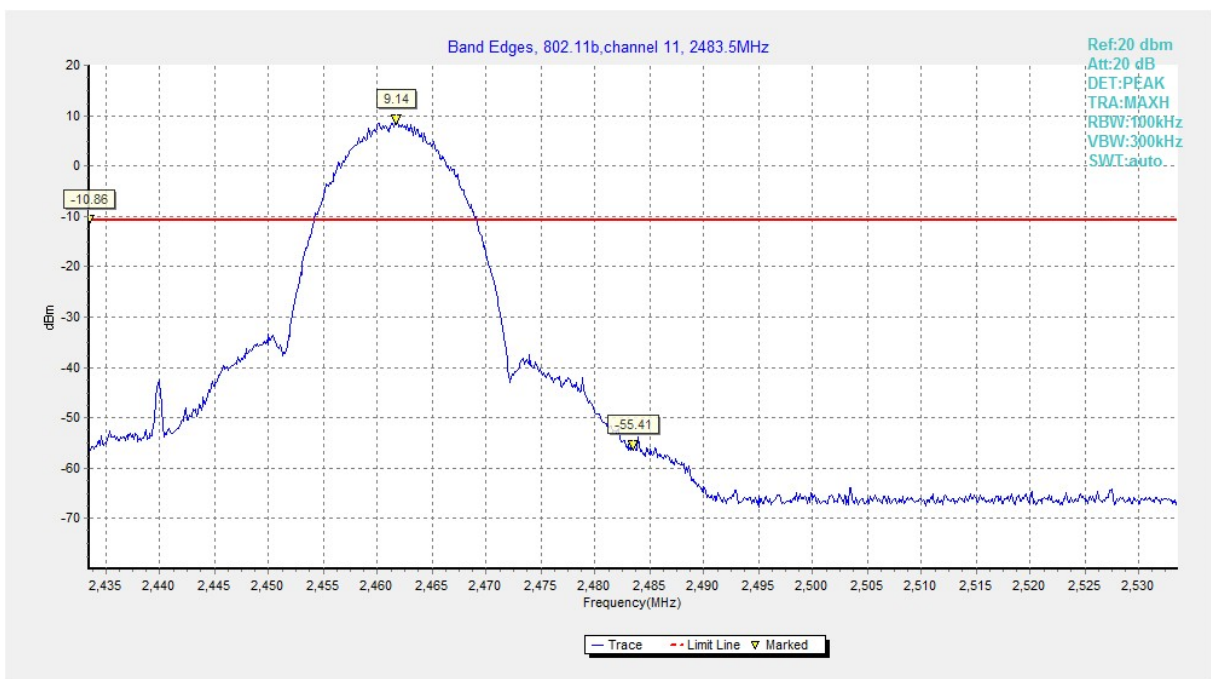


Fig.A.5.2 Band Edges (802.11b, Ch 11)

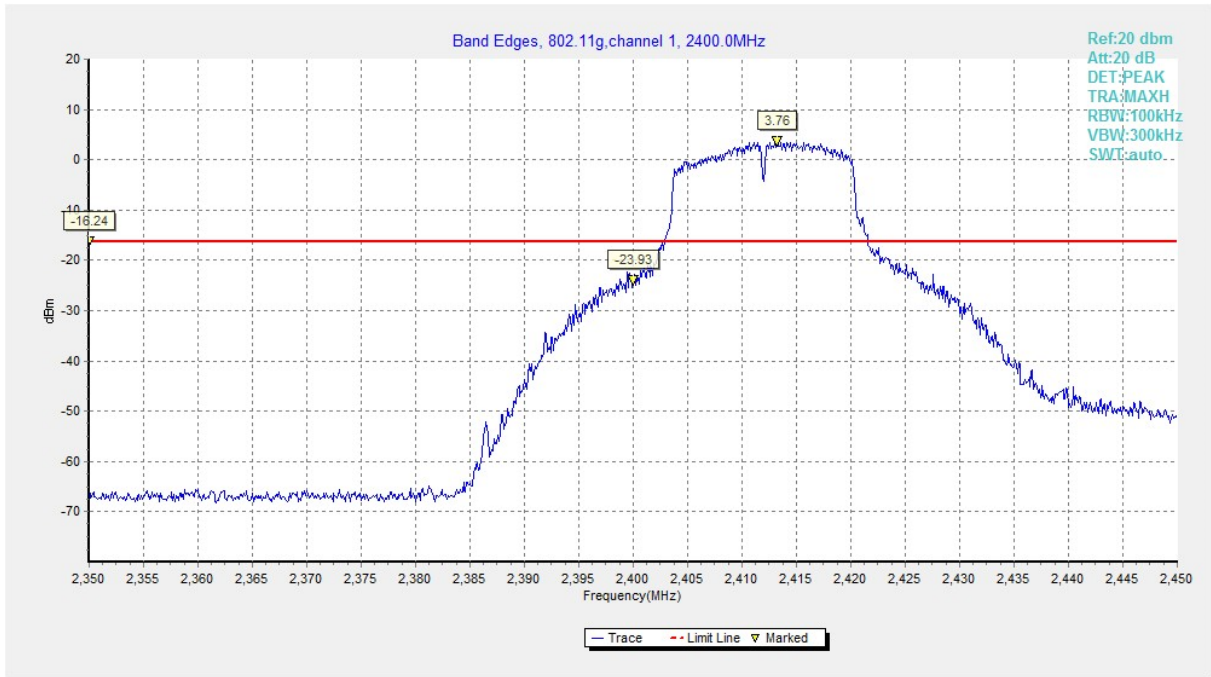


Fig.A.5.3 Band Edges (802.11g, Ch 1)

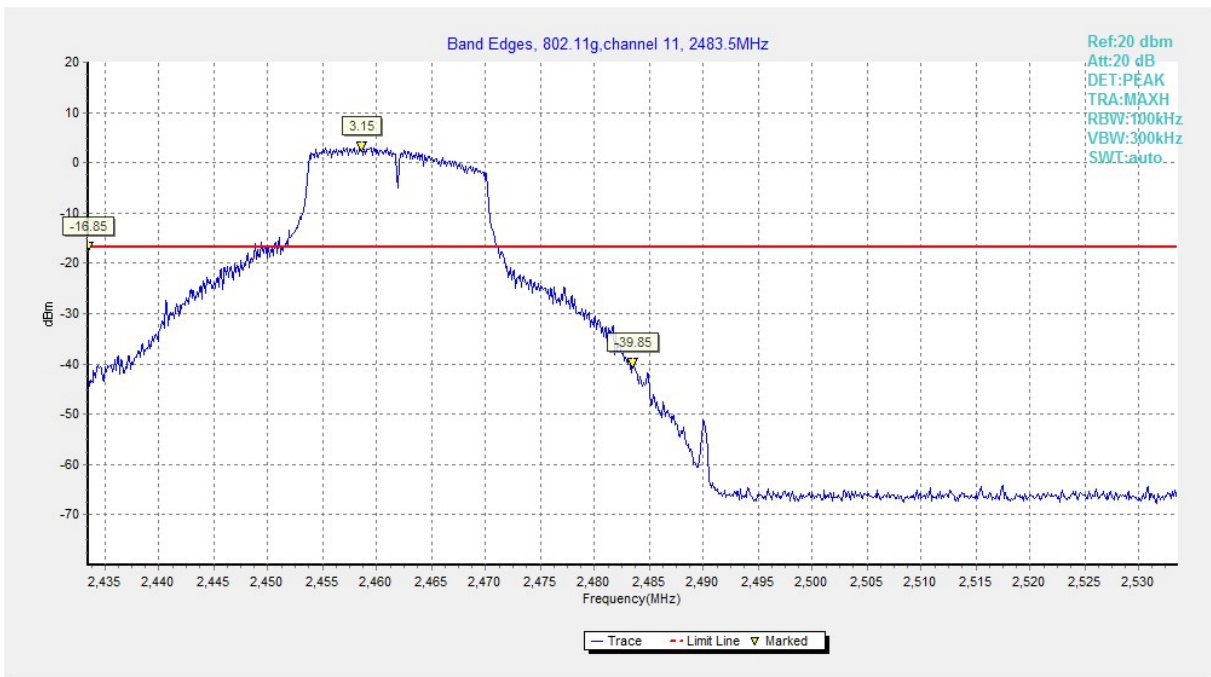


Fig.A.5.4 Band Edges (802.11g, Ch 11)

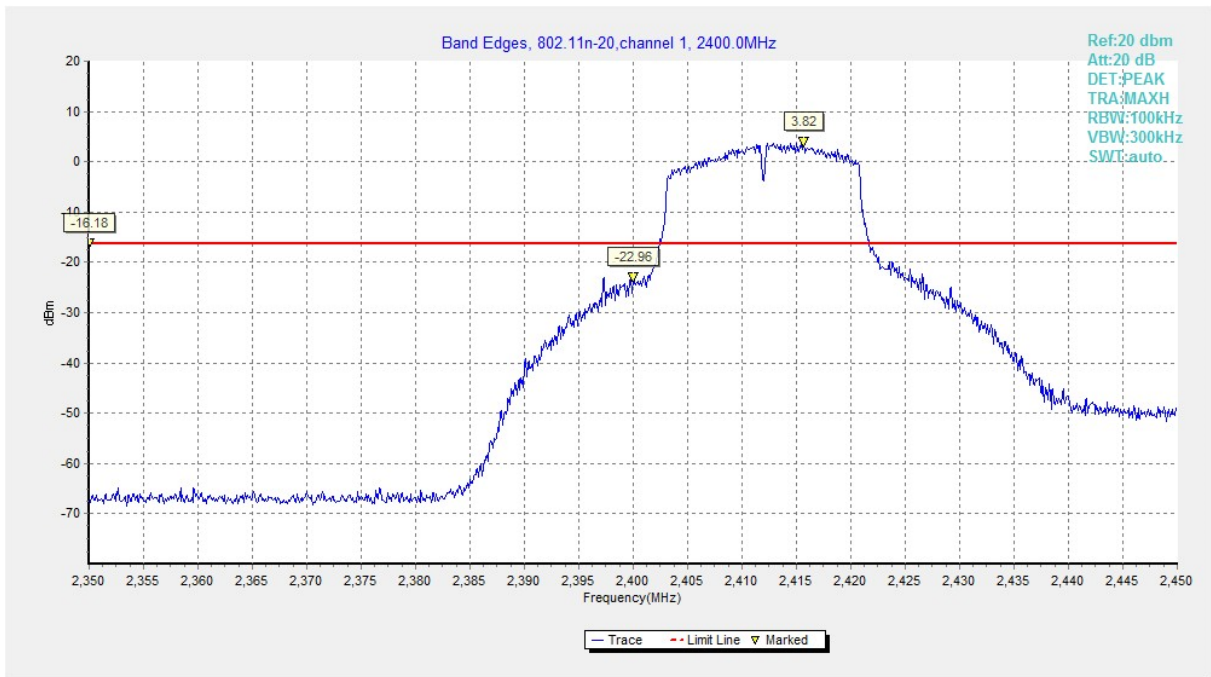


Fig.A.5.5 Band Edges (802.11n-HT20, Ch 1)

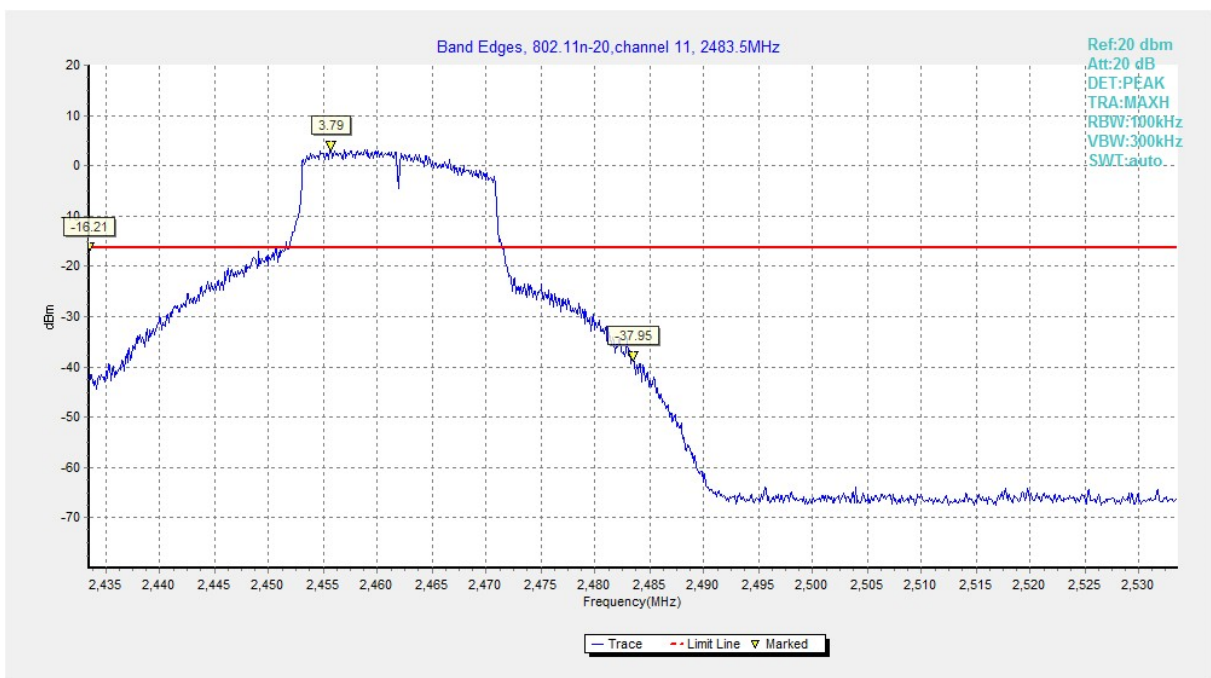


Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)

A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission – Conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.11

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to ≥ 1.5 times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 kHz
- e) Detector = Peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

EUT ID: EUT1

Measurement Results:

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.A.6.1.1	P
		30 MHz ~ 26 GHz	Fig.A.6.1.2	P
	6	2.437 GHz	Fig.A.6.1.3	P
		30 MHz ~ 26 GHz	Fig.A.6.1.4	P
	11	2.462 GHz	Fig.A.6.1.5	P
		30 MHz ~ 26 GHz	Fig.A.6.1.6	P
MODE	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.412 GHz	Fig.A.6.1.7	P
		30 MHz ~ 26 GHz	Fig.A.6.1.8	P
	6	2.437 GHz	Fig.A.6.1.9	P
		30 MHz ~ 26 GHz	Fig.A.6.1.10	P
	11	2.462 GHz	Fig.A.6.1.11	P
		30 MHz ~ 26 GHz	Fig.A.6.1.12	P
MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.412 GHz	Fig.A.6.1.13	P
		30 MHz ~ 26 GHz	Fig.A.6.1.14	P
	6	2.437 GHz	Fig.A.6.1.15	P
		30 MHz ~ 26 GHz	Fig.A.6.1.16	P
	11	2.462 GHz	Fig.A.6.1.17	P
		30 MHz ~ 26 GHz	Fig.A.6.1.18	P

Conclusion: Pass

Test graphs as below:

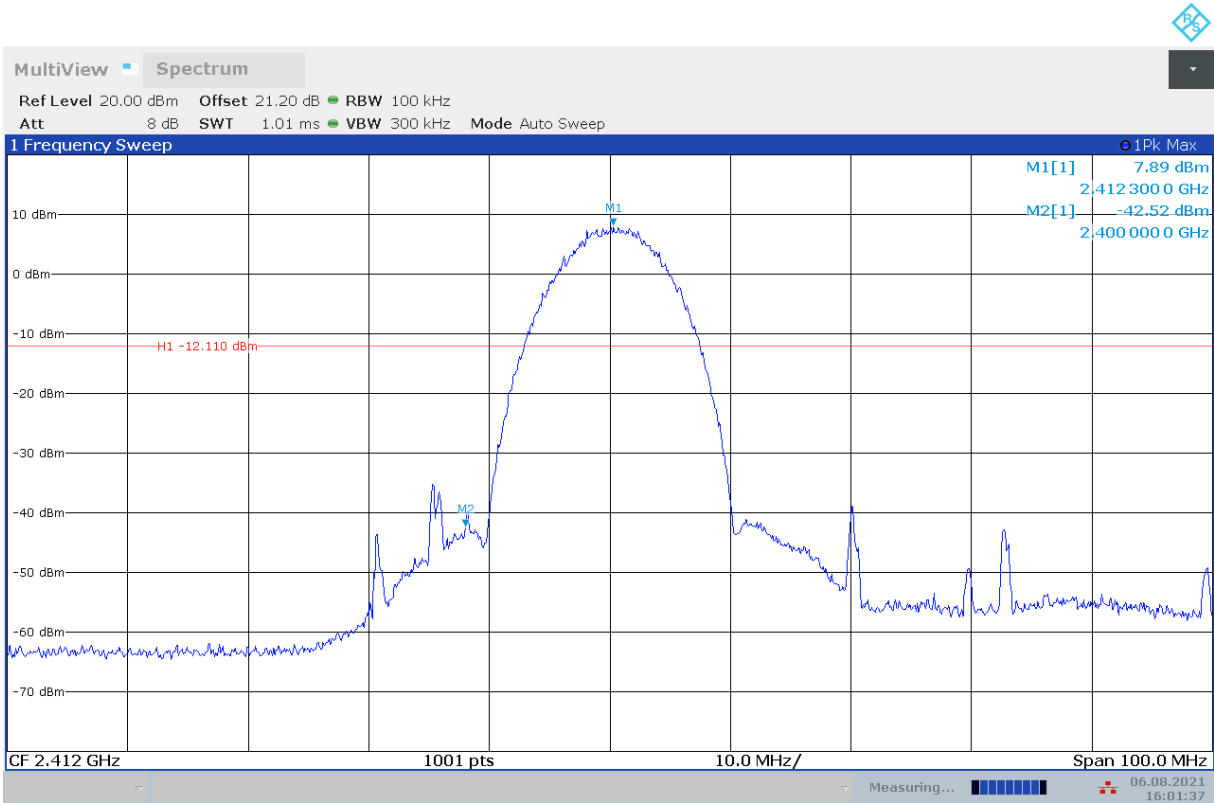


Fig.A.6.1.1 Transmitter Spurious Emission - Conducted (802.11b, Ch1, Center Frequency)

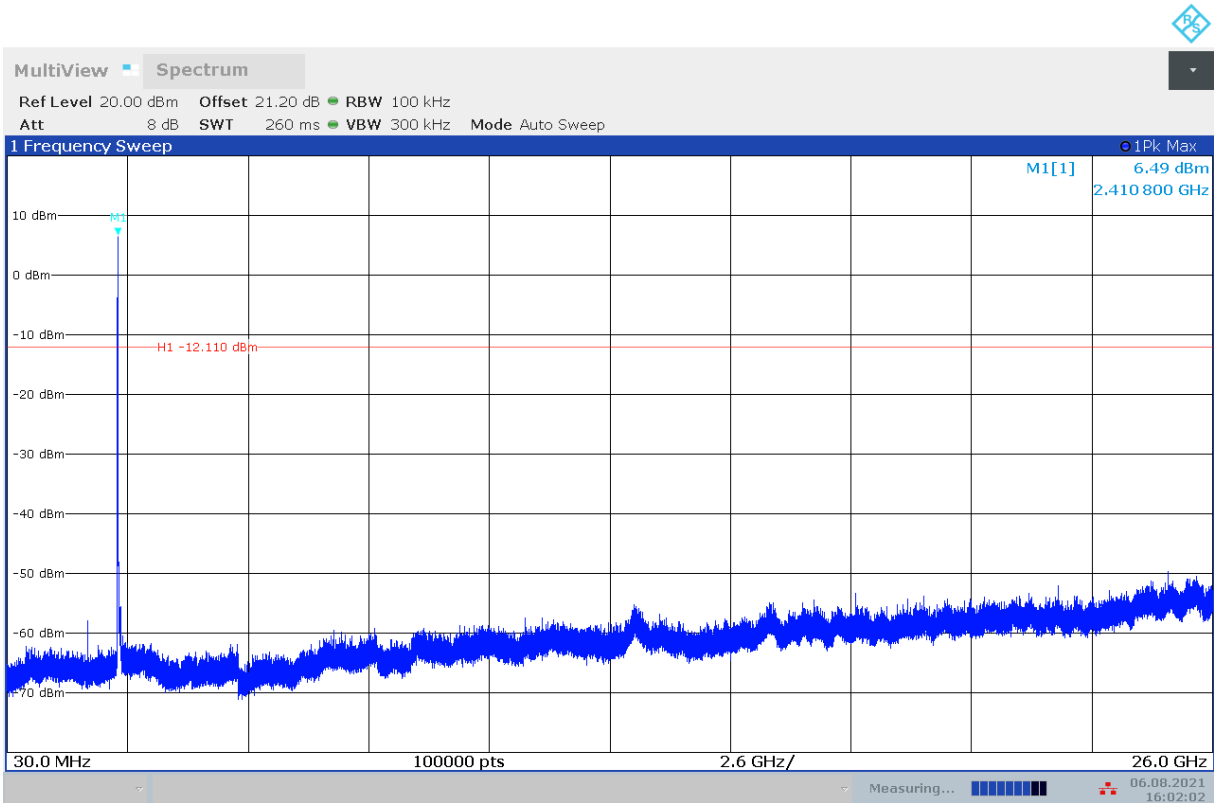


Fig.A.6.1.2 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 30 MHz-26 GHz)

GHz)

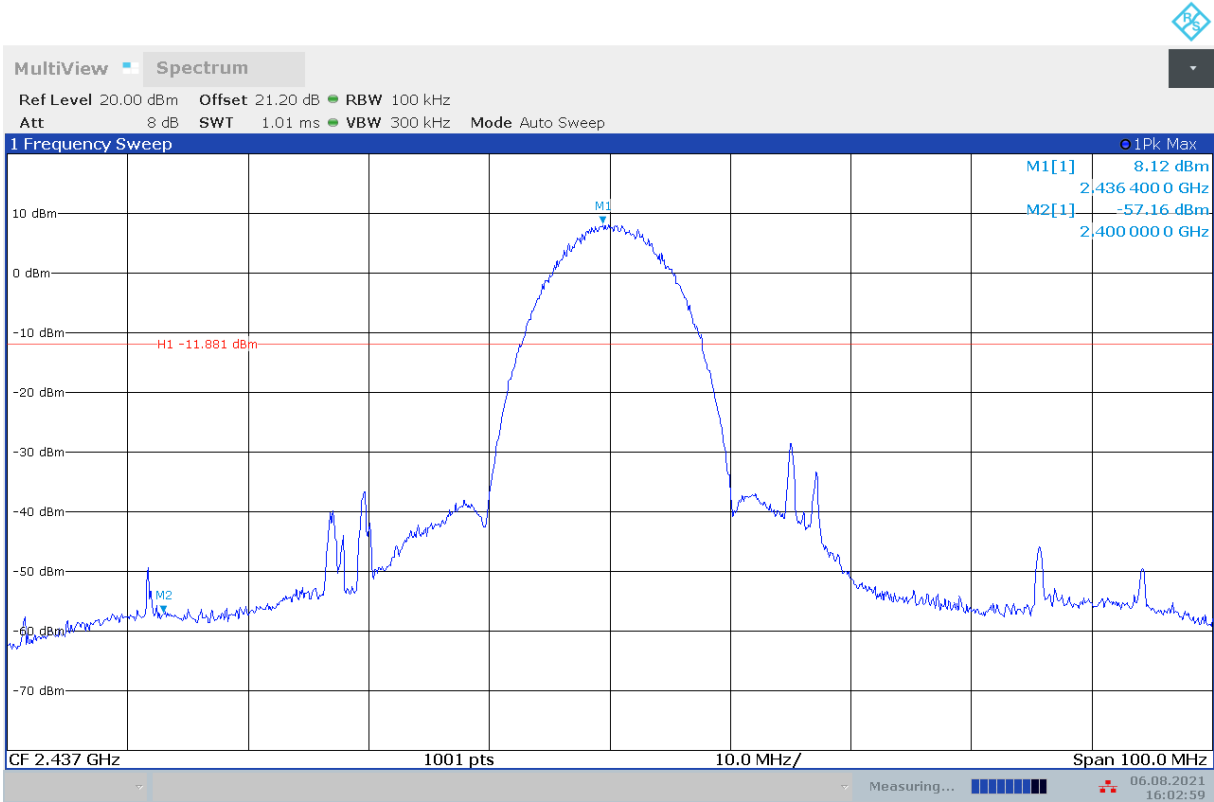


Fig.A.6.1.3 Transmitter Spurious Emission - Conducted (802.11b, Ch6, Center Frequency)

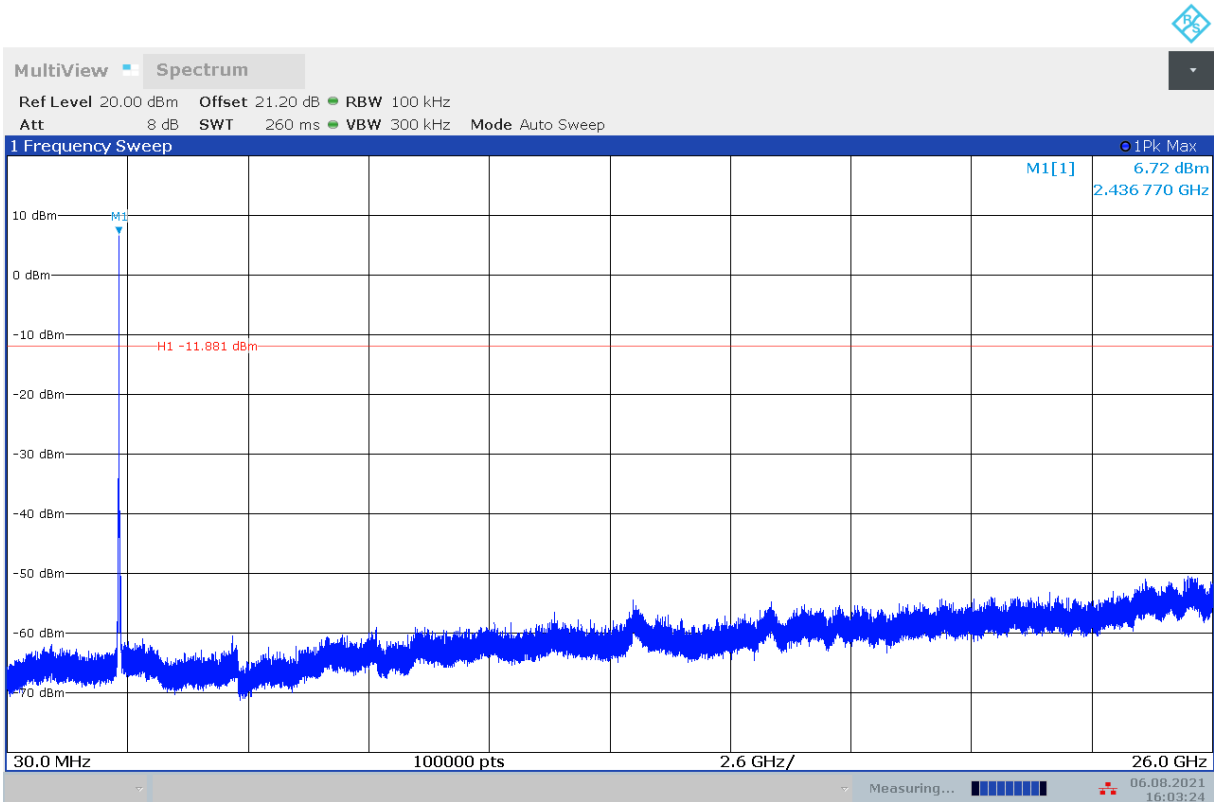


Fig.A.6.1.4 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 30 MHz-26 GHz)

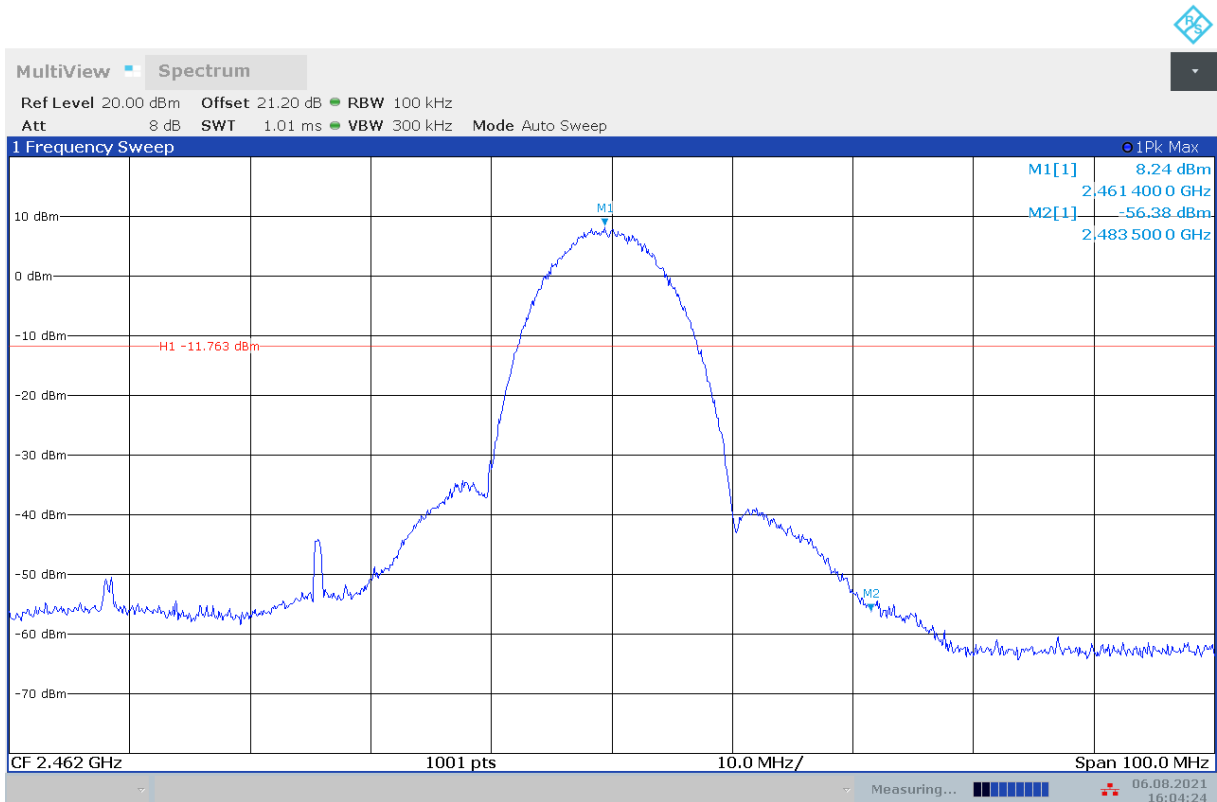


Fig.A.6.1.5 Transmitter Spurious Emission - Conducted (802.11b, Ch11, Center Frequency)

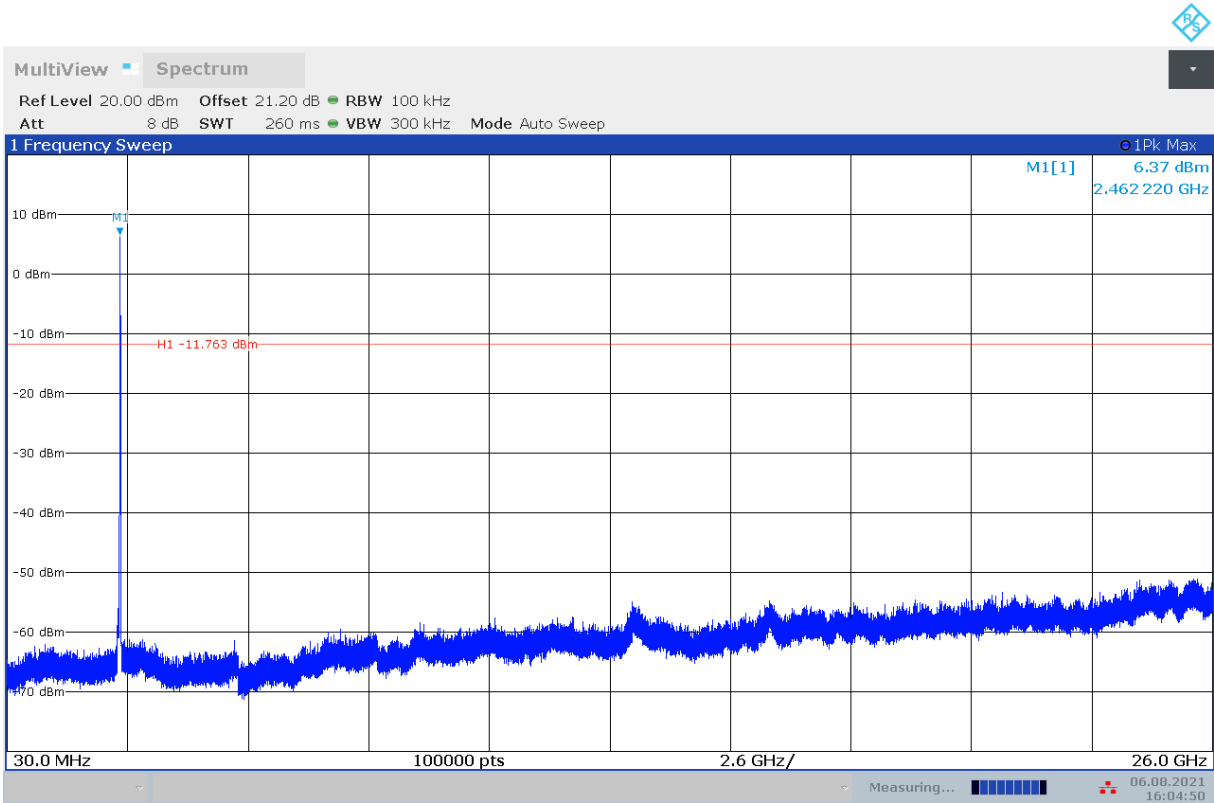


Fig.A.6.1.6 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 30 MHz-26 GHz)

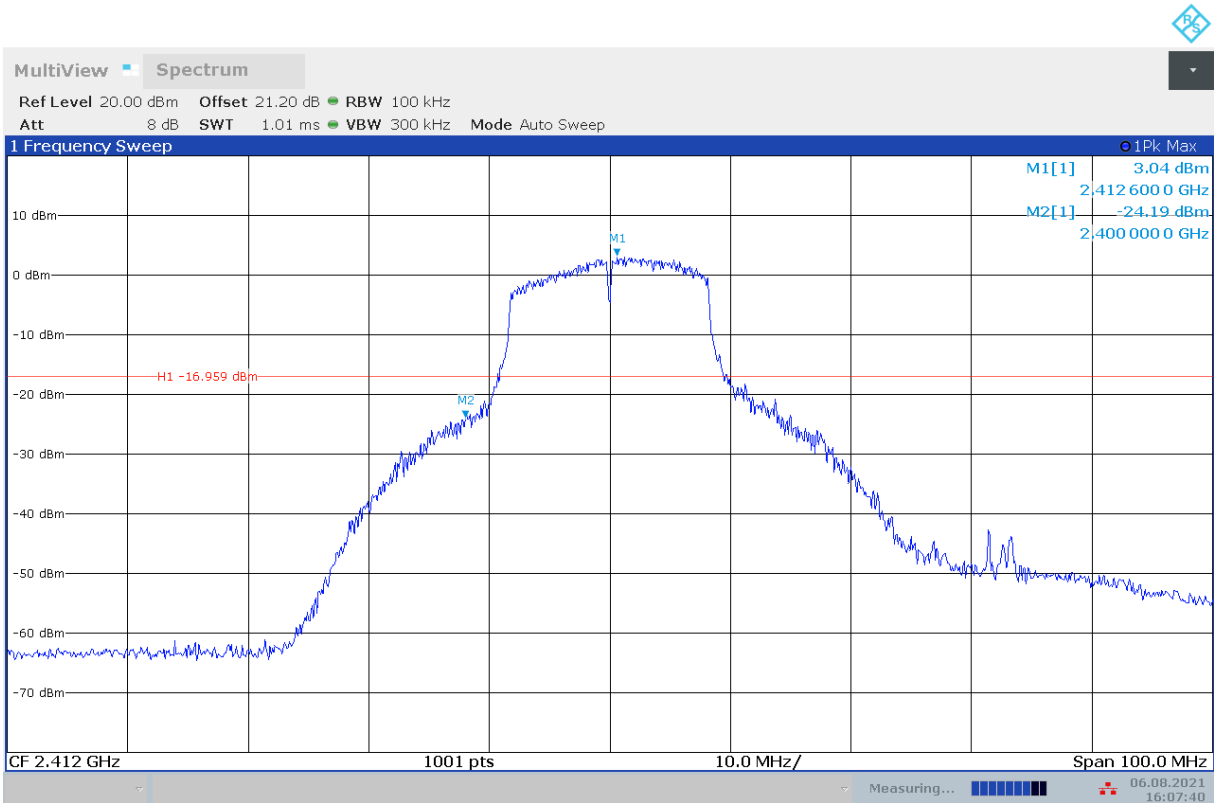


Fig.A.6.1.7 Transmitter Spurious Emission - Conducted (802.11g, Ch1, Center)

Frequency)

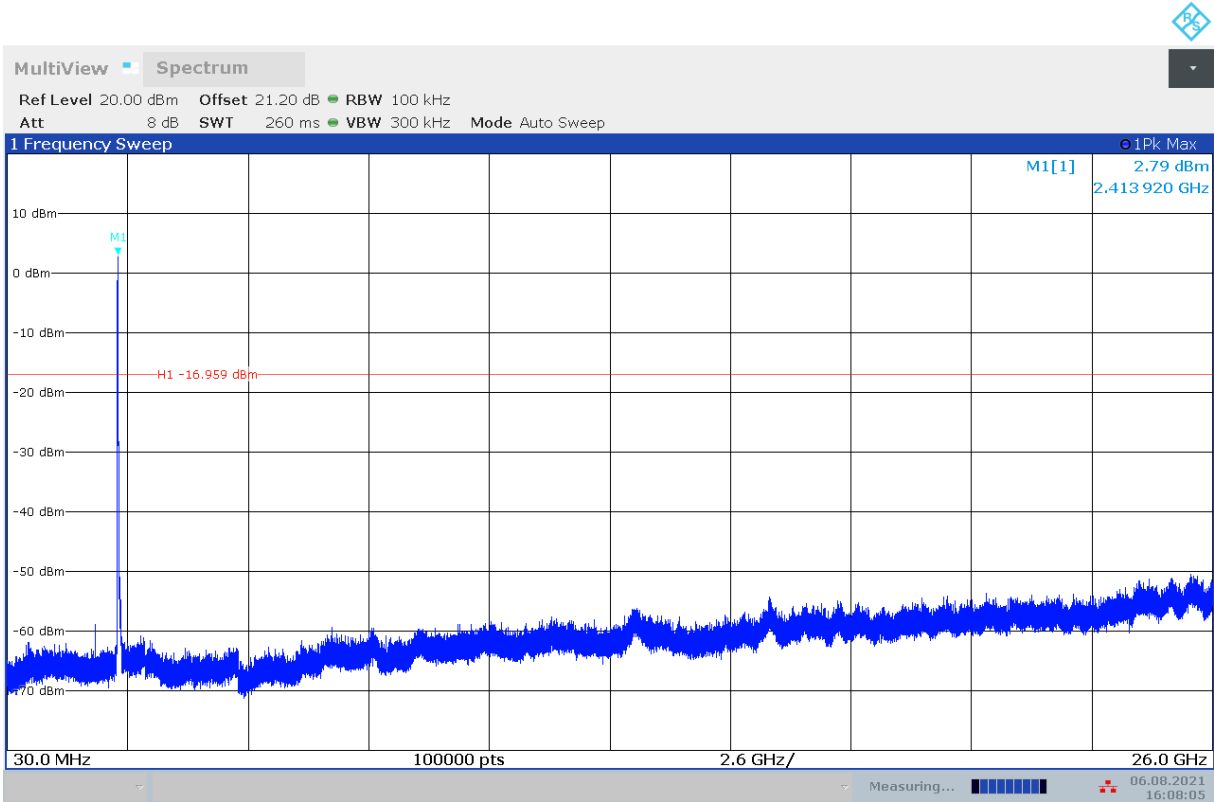


Fig.A.6.1.8 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 30 MHz-26 GHz)

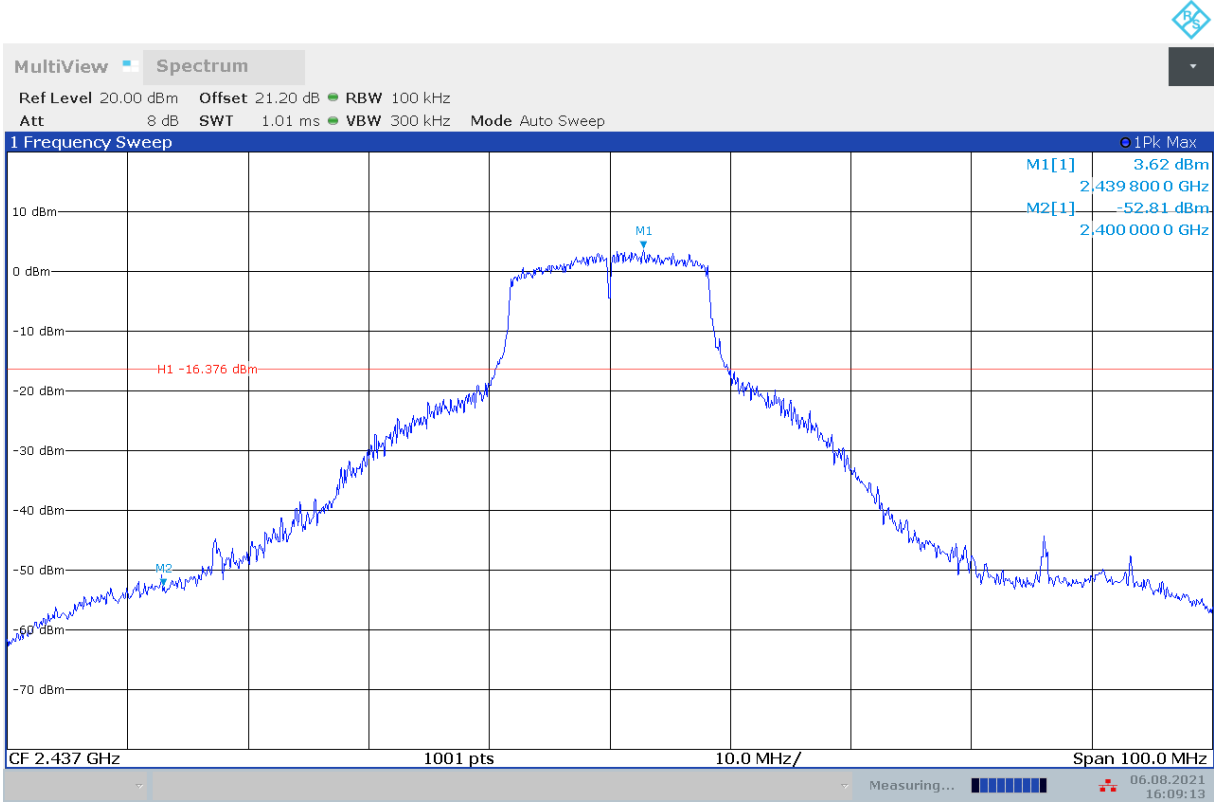


Fig.A.6.1.9 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)

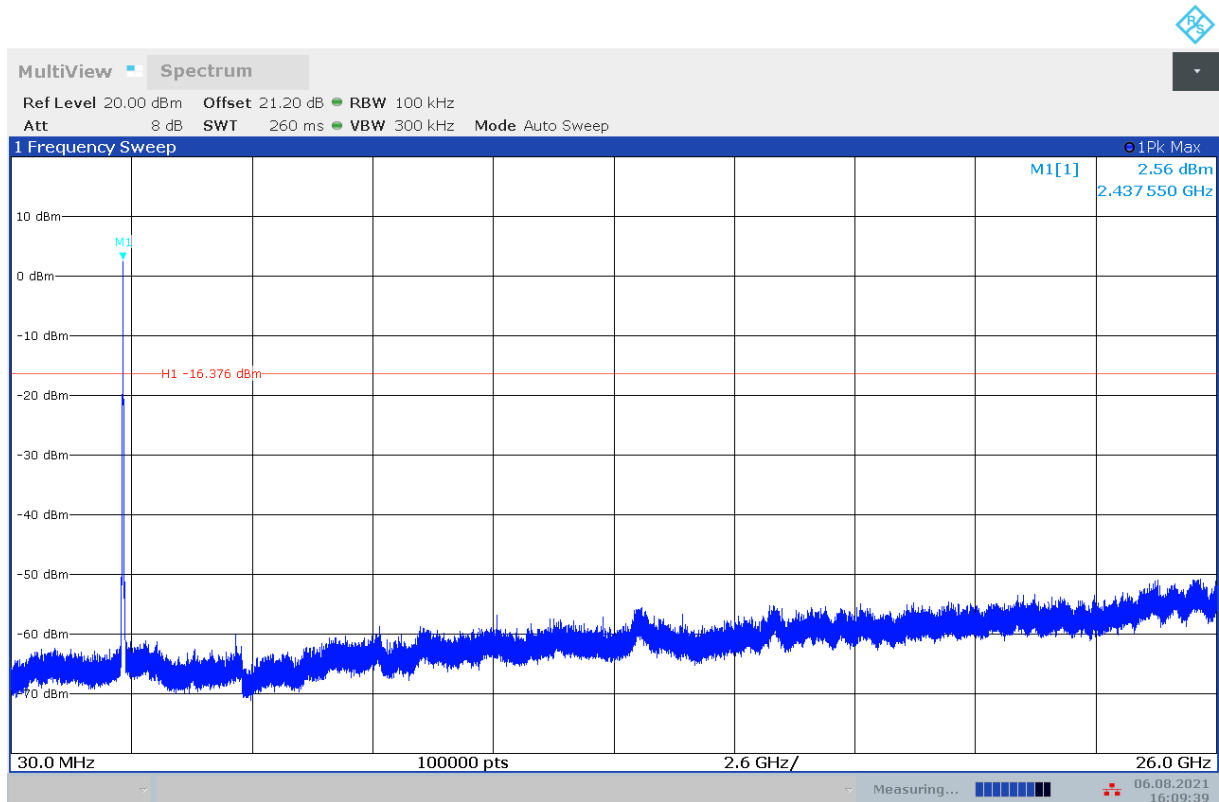


Fig.A.6.1.10 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-26 GHz)

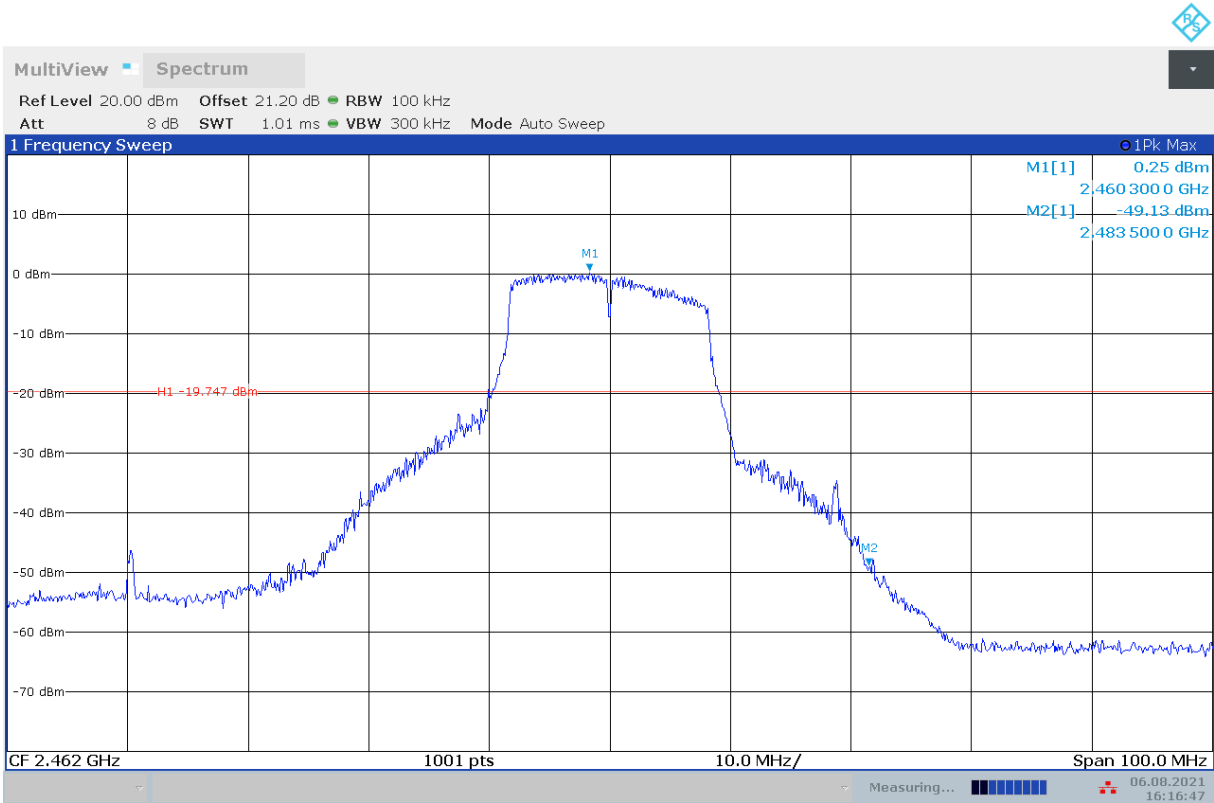


Fig.A.6.1.11 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)

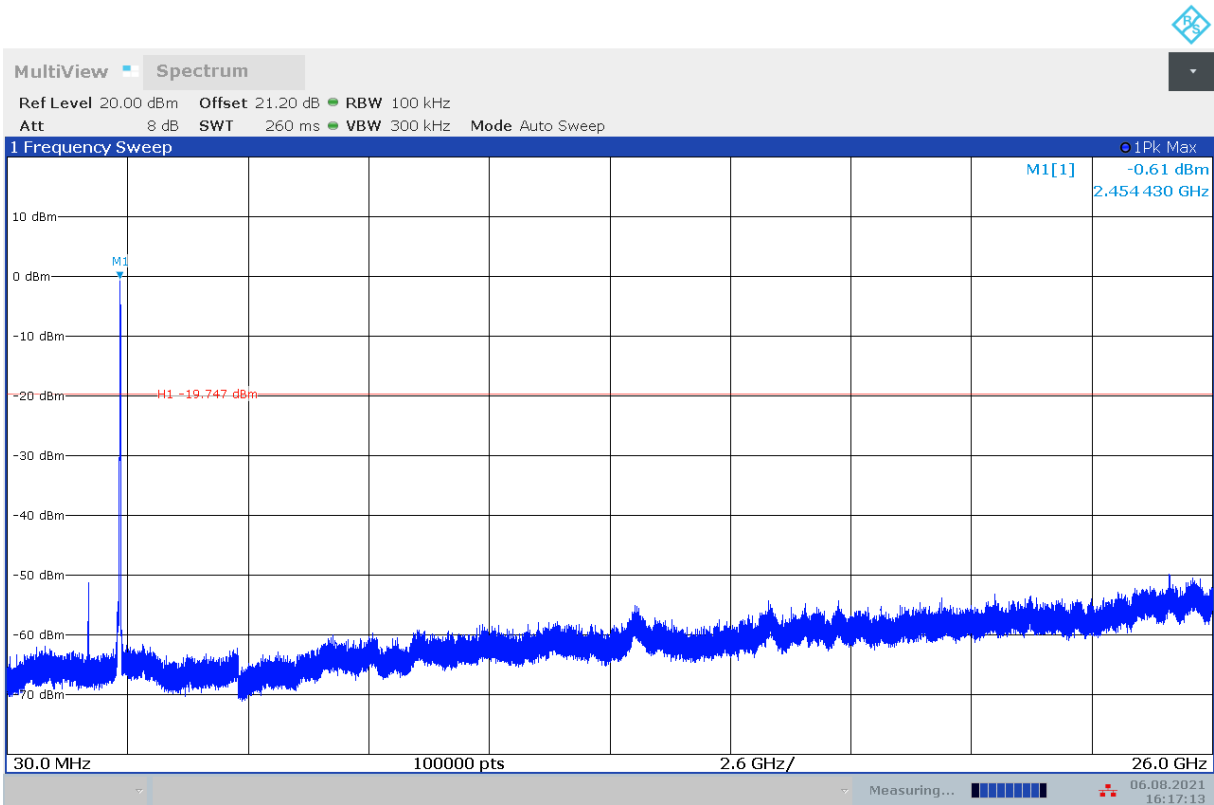


Fig.A.6.1.12 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-26 GHz)

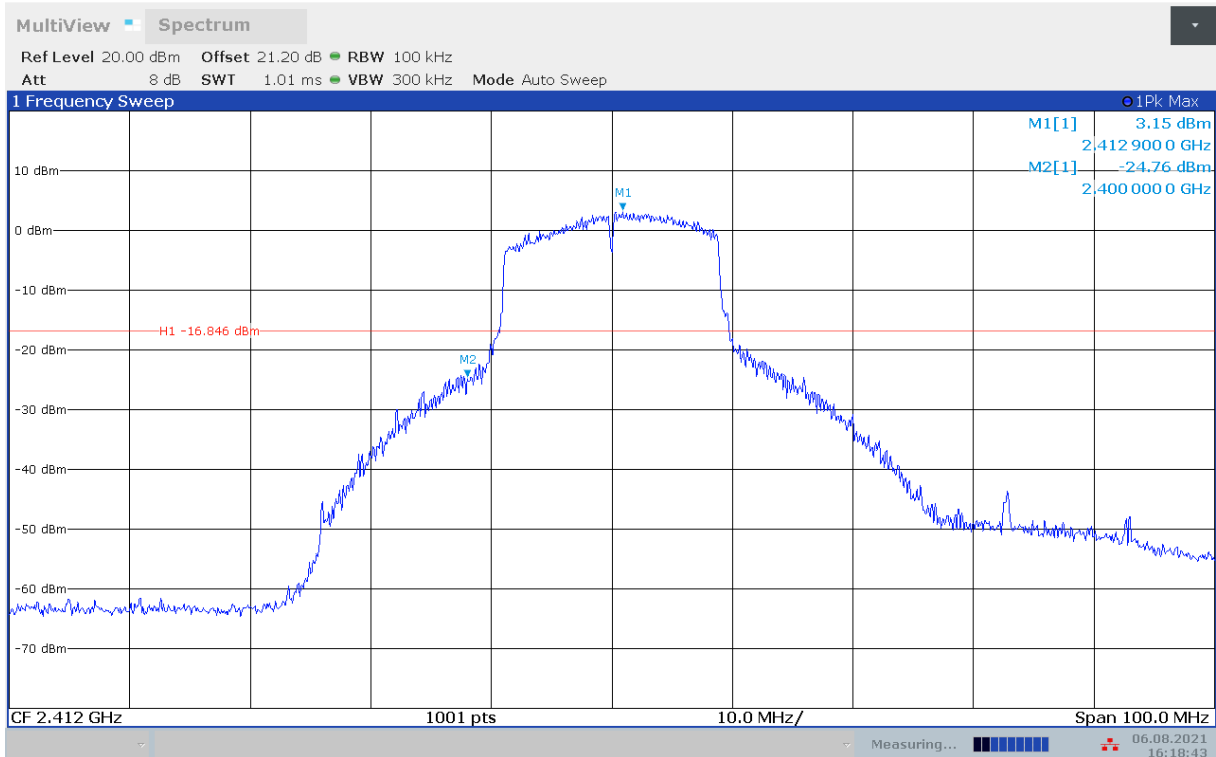


Fig.A.6.1.13 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)

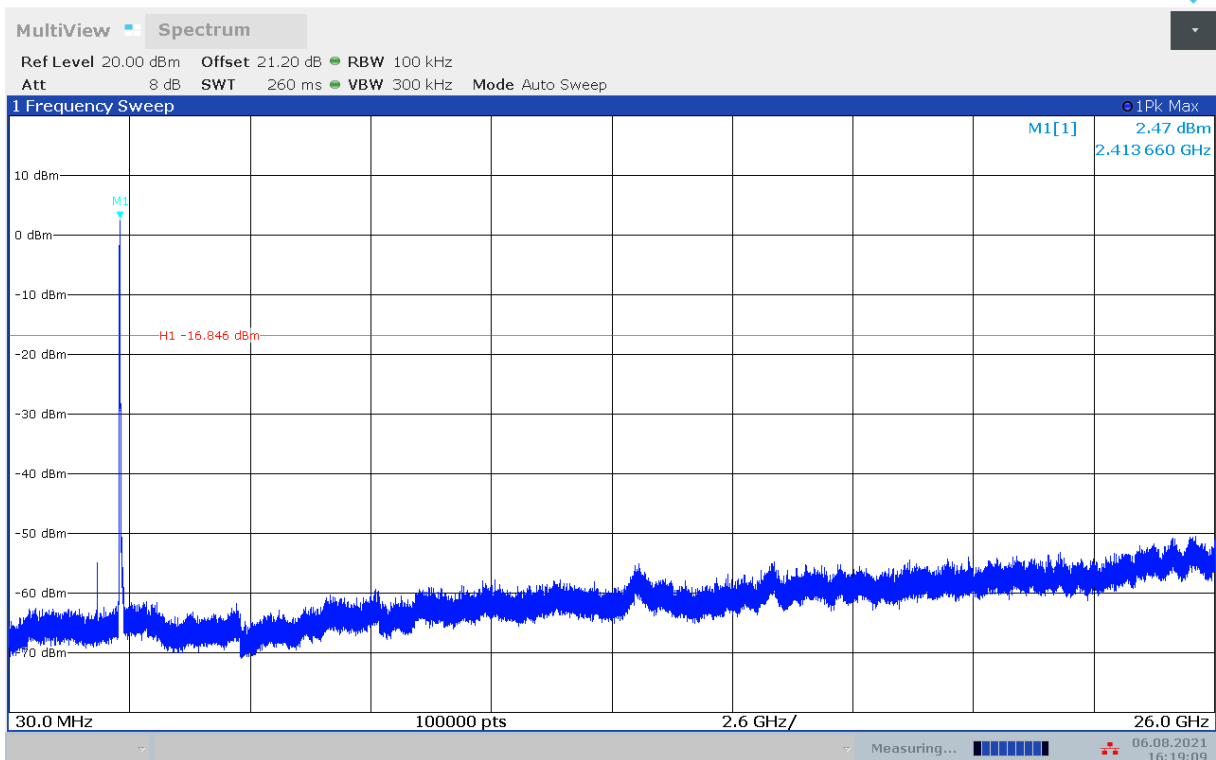


Fig.A.6.1.14 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-26 GHz)

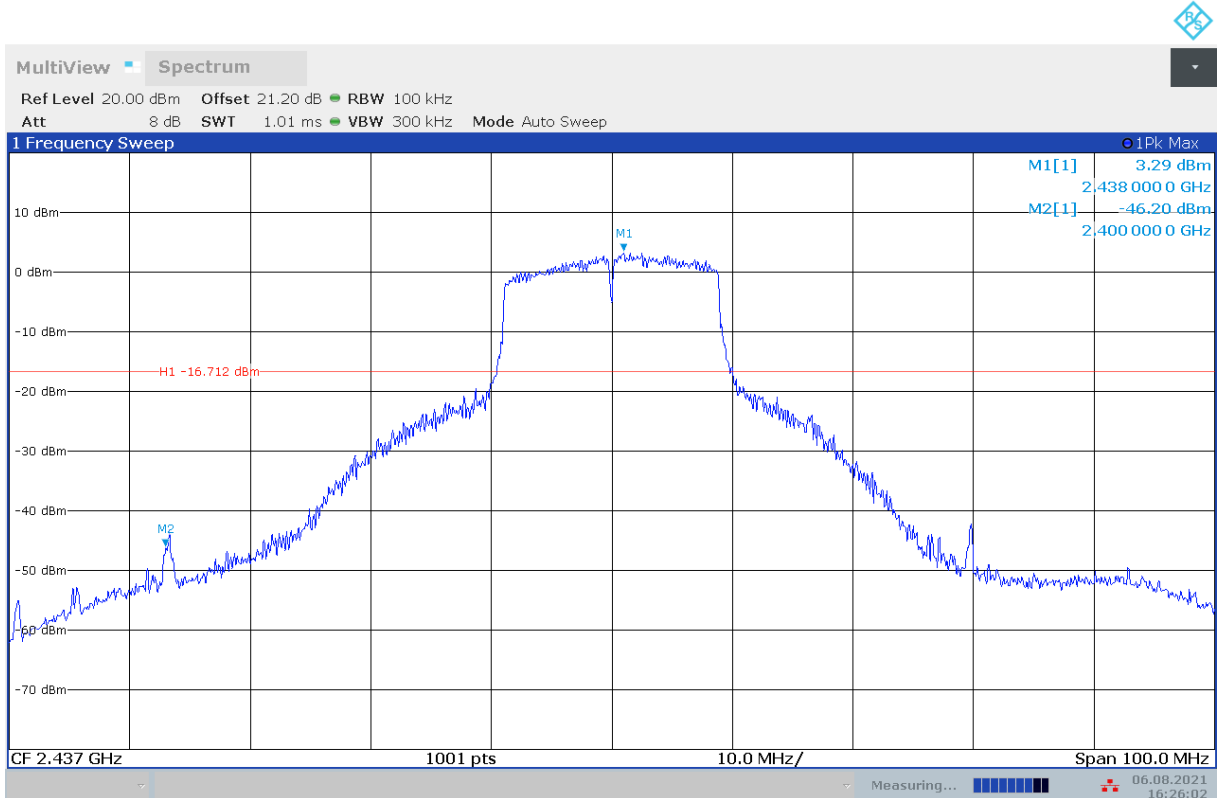


Fig.A.6.1.15 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

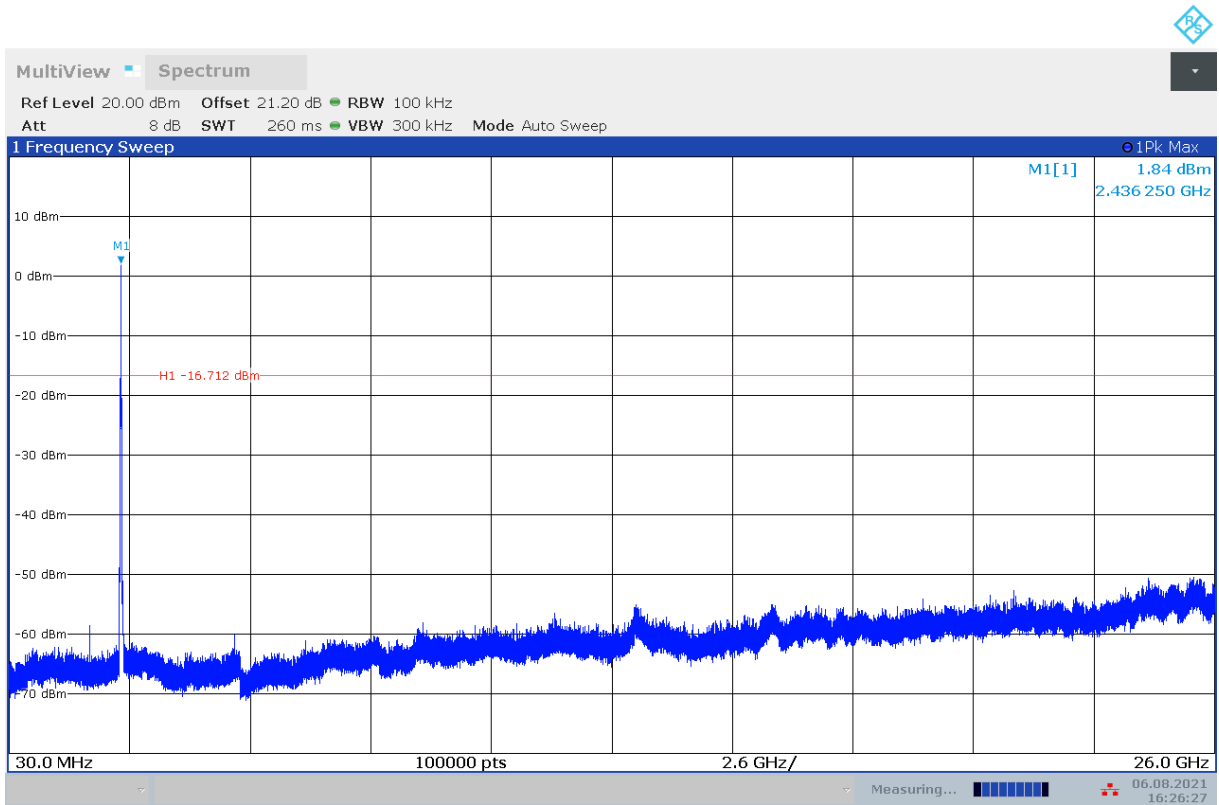


Fig.A.6.1.16 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-26 GHz)

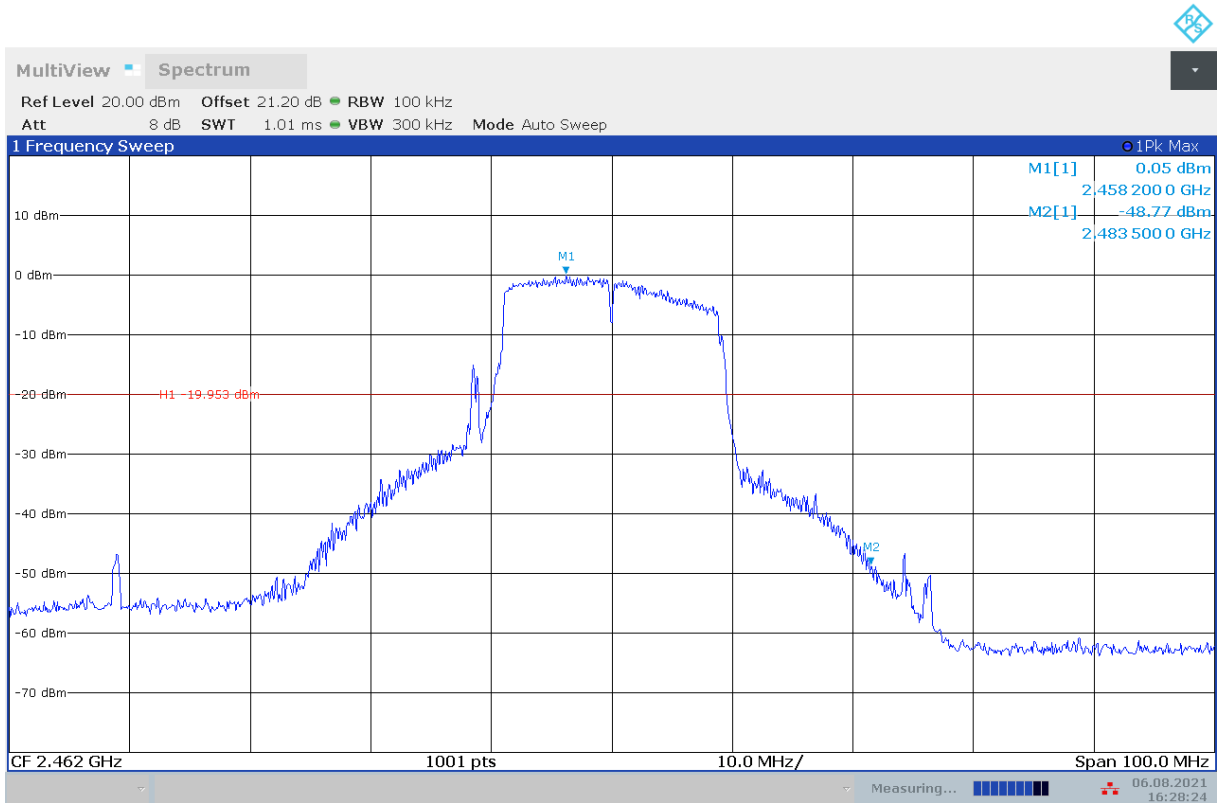


Fig.A.6.1.17 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center)

Frequency)

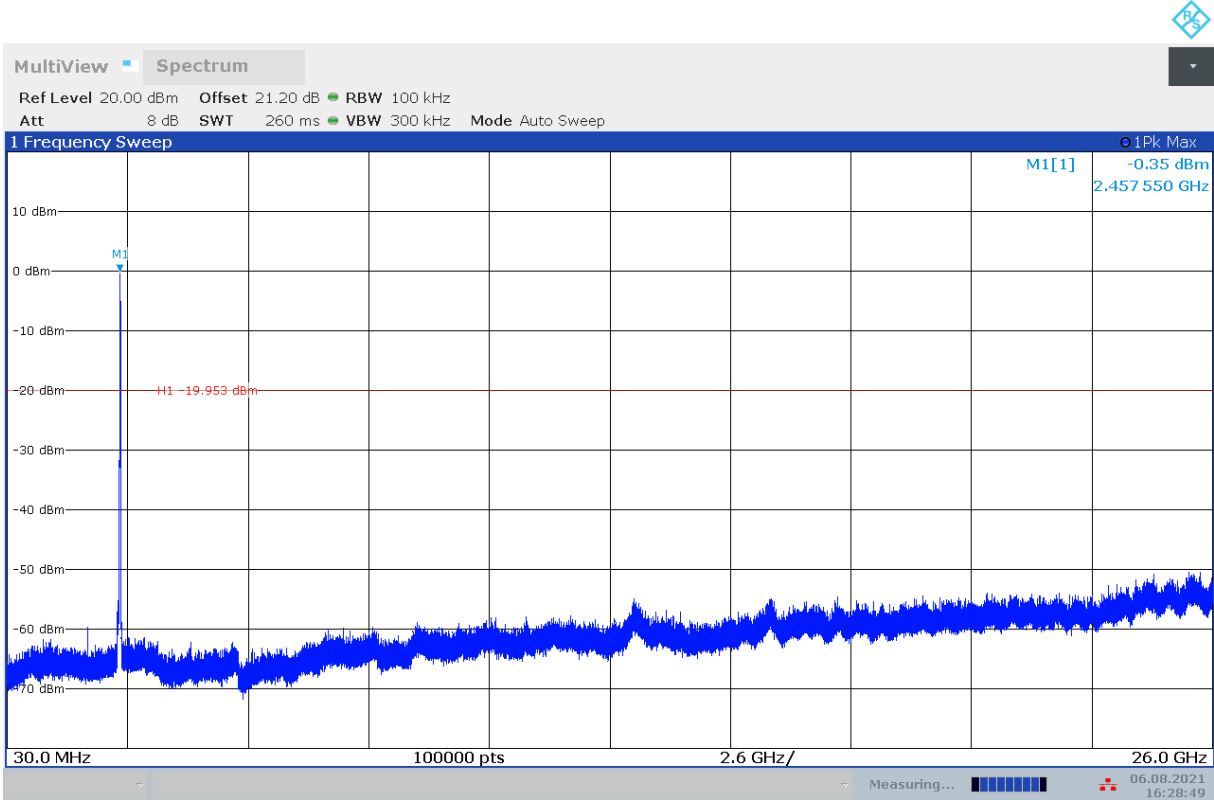


Fig.A.6.1.18 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated

Method of Measurement: See ANSI C63.10-2013-clause 6.4 & 6.5 & 6.6

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Frequency (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m

The EUT and transmitting antenna shall be centered on the turntable.

Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The instrument setting:

Frequency of emission (MHz)	RBW/VBW
30-1000	100kHz/300kHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz

EUT ID: UT06a

Measurement results for Set.1:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.31GHz~2.43GHz---L	Fig.A.6.2.1	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.31GHz~2.43GHz---L	Fig.A.6.2.3	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.4	P
	10	2.45GHz~2.50GHz---H	Fig.A.6.2.5	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.31GHz~2.43GHz---L	Fig.A.6.2.6	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.7	P
	10	2.45GHz~2.50GHz---H	Fig.A.6.2.8	P

Conclusion: Pass

Note:

1. A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable\ Loss+Antenna\ Factor$

2. The range of evaluated frequency is from 9 kHz to 26GHz. Measurement value show only up to 6 maximum emissions noted.

Peak

802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2375.464	61.39	2.9	32.0	26.55	74.0	12.6	V
2377.410	60.62	2.9	32.0	25.78	74.0	13.4	V
4824.000	43.78	-33.2	34.1	42.88	74.0	30.2	V
7236.000	45.53	-30.9	35.8	40.62	74.0	28.5	V
9648.000	45.78	-30.5	36.7	39.52	74.0	28.2	H
12060.000	47.66	-28.7	38.7	37.63	74.0	26.3	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2368.800	45.34	-34.5	32.0	47.89	74.0	28.7	H
2507.800	46.26	-34.2	32.1	48.38	74.0	27.7	V
4874.000	42.90	-33.3	34.2	42.04	74.0	31.1	H
7311.000	43.07	-30.8	35.8	38.06	74.0	30.9	V
9748.000	44.61	-30.3	36.9	38.09	74.0	29.4	H
12185.000	47.36	-28.1	38.8	36.65	74.0	26.6	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.145	60.58	2.9	32.1	25.56	74.0	13.4	H
2484.855	59.92	2.9	32.1	24.90	74.0	14.1	H
4924.000	42.79	-33.5	34.2	42.14	74.0	31.2	H
7386.000	44.07	-31.5	35.9	39.67	74.0	29.9	V
9848.000	45.50	-30.2	37.0	38.69	74.0	28.5	H
12310.000	46.13	-27.8	38.9	34.99	74.0	27.9	V

802.11g
Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.940	69.27	2.9	32.0	34.34	74.0	4.7	V
2390.010	68.55	2.9	32.0	33.66	74.0	5.5	H
4824.000	45.71	-33.2	34.1	44.81	74.0	28.3	H
7236.000	44.78	-30.9	35.8	39.87	74.0	29.2	V
9648.000	45.32	-30.5	36.7	39.07	74.0	28.7	H
12060.000	47.19	-28.7	38.7	37.15	74.0	26.8	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2367.600	46.23	-34.6	32.0	48.83	74.0	27.8	V
2504.000	45.93	-34.2	32.1	48.02	74.0	28.1	H
4874.000	45.95	-33.3	34.2	45.10	74.0	28.0	H
7311.000	45.97	-30.8	35.8	40.96	74.0	28.0	V
9748.000	44.88	-30.3	36.9	38.36	74.0	29.1	V
12185.000	48.00	-28.1	38.8	37.30	74.0	26.0	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.610	70.71	2.9	32.1	35.69	74.0	3.3	V
2484.010	68.08	2.9	32.1	33.06	74.0	5.9	V
4924.000	44.06	-33.5	34.2	43.41	74.0	29.9	H
7386.000	44.83	-31.5	35.9	40.43	74.0	29.2	H
9848.000	44.54	-30.2	37.0	37.72	74.0	29.5	H
12310.000	46.64	-27.8	38.9	35.51	74.0	27.4	H

802.11n-HT20
Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2388.708	65.49	2.9	32.0	30.62	74.0	8.5	H
2389.842	67.15	2.9	32.0	32.12	74.0	6.8	V
4824.000	43.31	-33.2	34.1	42.41	74.0	30.7	H
7236.000	45.28	-30.9	35.8	40.37	74.0	28.7	V
9648.000	44.78	-30.5	36.7	38.53	74.0	29.2	H
12060.000	46.17	-28.7	38.7	36.14	74.0	27.8	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2369.400	45.10	-34.5	32.0	47.63	74.0	28.9	V
2504.200	45.66	-34.2	32.1	47.75	74.0	28.3	V
4874.000	42.83	-33.3	34.2	41.98	74.0	31.2	V
7311.000	44.88	-30.8	35.8	39.87	74.0	29.1	V
9748.000	45.42	-30.3	36.9	38.90	74.0	28.6	V
12185.000	48.13	-28.1	38.8	37.42	74.0	25.9	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.765	69.43	2.9	32.1	34.41	74.0	4.6	V
2485.170	68.85	2.9	32.1	33.83	74.0	5.2	H
4924.000	31.85	-33.5	34.2	31.20	74.0	42.2	H
7386.000	33.15	-31.5	35.9	28.75	74.0	40.8	V
9848.000	33.60	-30.2	37.0	26.78	74.0	40.4	H
12310.000	35.54	-27.8	38.9	24.40	74.0	38.5	V

Average
802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.800	48.60	2.9	32.0	13.74	54.0	5.4	V
2389.980	48.62	2.9	32.0	13.75	54.0	5.4	V
4824.000	28.00	-33.2	34.1	27.11	54.0	26.0	H
7236.000	30.21	-30.9	35.8	25.29	54.0	23.8	V
9648.000	31.11	-30.5	36.7	24.85	54.0	22.9	H
12060.000	33.17	-28.7	38.7	23.14	54.0	20.8	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2421.960	47.48	2.9	32.0	12.56	54.0	6.5	V
2452.620	48.01	2.9	32.1	13.05	54.0	6.0	V
4874.000	31.13	-33.3	34.2	30.28	54.0	22.9	H
7311.000	32.83	-30.8	35.8	27.82	54.0	21.2	V
9748.000	33.45	-30.3	36.9	26.93	54.0	20.6	H
12185.000	36.12	-28.1	38.8	25.41	54.0	17.9	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.520	47.02	2.9	32.1	12.00	54.0	7.0	V
2484.000	47.03	2.9	32.1	12.01	54.0	7.0	V
4924.000	31.50	-33.5	34.2	30.86	54.0	22.5	V
7386.000	32.76	-31.5	35.9	28.36	54.0	21.2	H
9848.000	33.24	-30.2	37.0	26.42	54.0	20.8	H
12310.000	35.22	-27.8	38.9	24.08	54.0	18.8	H

802.11g
Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2388.720	50.16	2.9	32.0	15.26	54.0	3.8	V
2389.960	51.02	2.9	32.0	16.12	54.0	3.0	V
4824.000	31.75	-33.2	34.1	30.86	54.0	22.2	H
7236.000	33.60	-30.9	35.8	28.68	54.0	20.4	H
9648.000	34.00	-30.5	36.7	27.75	54.0	20.0	H
12060.000	34.93	-28.7	38.7	24.90	54.0	19.1	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2413.080	47.64	2.9	32.0	12.74	54.0	6.4	V
2459.640	47.64	2.9	32.1	12.66	54.0	6.4	V
4874.000	31.47	-33.3	34.2	30.62	54.0	22.5	H
7311.000	33.29	-30.8	35.8	28.28	54.0	20.7	V
9748.000	33.82	-30.3	36.9	27.30	54.0	20.2	H
12185.000	36.47	-28.1	38.8	25.76	54.0	17.5	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.640	49.65	2.9	32.1	14.63	54.0	4.4	V
2484.000	49.34	2.9	32.1	14.32	54.0	4.7	V
4924.000	31.97	-33.5	34.2	31.33	54.0	22.0	V
7386.000	33.31	-31.5	35.9	28.91	54.0	20.7	V
9848.000	33.66	-30.2	37.0	26.85	54.0	20.3	V
12310.000	35.48	-27.8	38.9	24.34	54.0	18.5	V

802.11n-HT20
Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2388.240	49.14	2.9	32.0	14.27	54.0	4.9	V
2389.740	50.12	2.9	32.0	15.45	54.0	3.9	V
4824.000	31.80	-33.2	34.1	30.90	54.0	22.2	H
7236.000	33.45	-30.9	35.8	28.53	54.0	20.6	V
9648.000	33.97	-30.5	36.7	27.72	54.0	20.0	H
12060.000	34.88	-28.7	38.7	24.84	54.0	19.1	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2409.360	47.35	2.9	32.0	12.45	54.0	6.7	V
2459.880	47.92	2.9	32.1	12.94	54.0	6.1	V
4874.000	31.45	-33.3	34.2	30.60	54.0	22.5	V
7311.000	33.20	-30.8	35.8	28.19	54.0	20.8	V
9748.000	33.73	-30.3	36.9	27.21	54.0	20.3	H
12185.000	36.34	-28.1	38.8	25.63	54.0	17.7	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.520	49.45	2.9	32.1	14.43	54.0	4.6	V
2483.820	49.35	2.9	32.1	14.33	54.0	4.6	V
4924.000	31.85	-33.5	34.2	31.20	54.0	22.2	H
7386.000	33.15	-31.5	35.9	28.75	54.0	20.8	H
9848.000	33.60	-30.2	37.0	26.78	54.0	20.4	V
12310.000	35.54	-27.8	38.9	24.40	54.0	18.5	V

Test graphs as below:

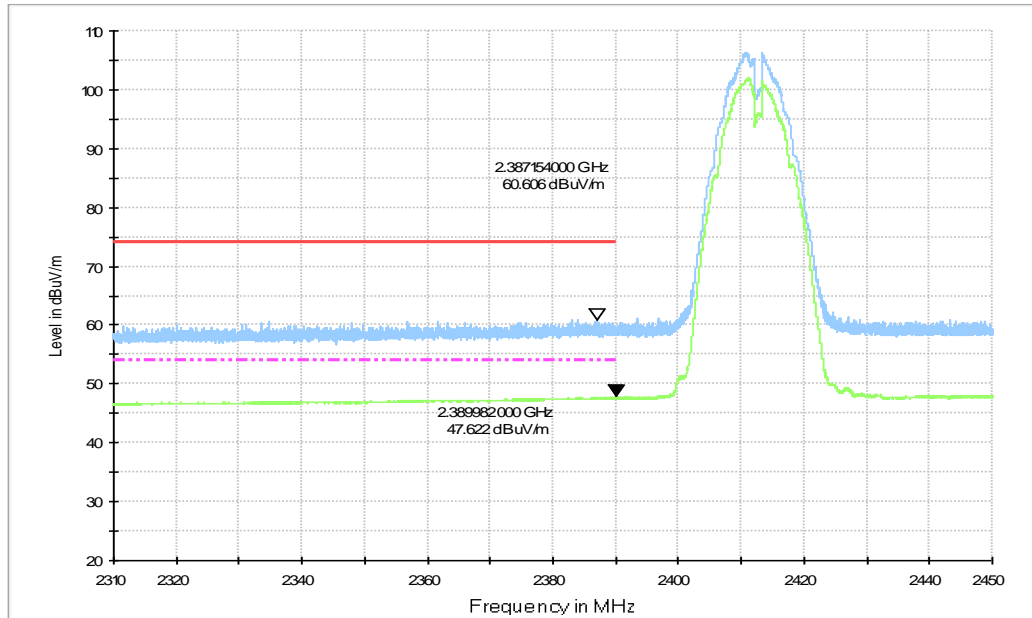


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

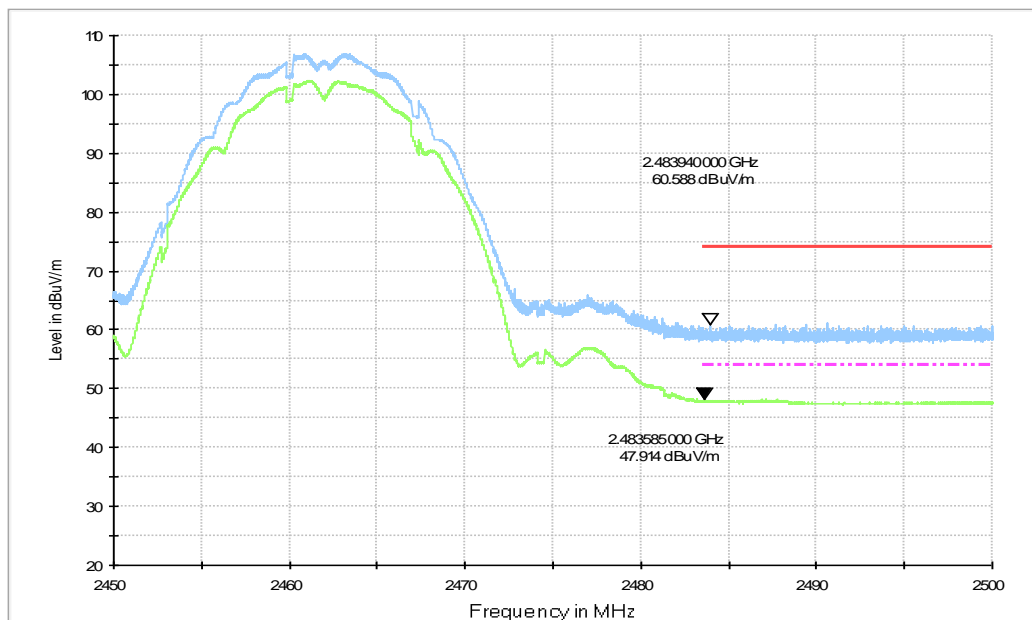


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

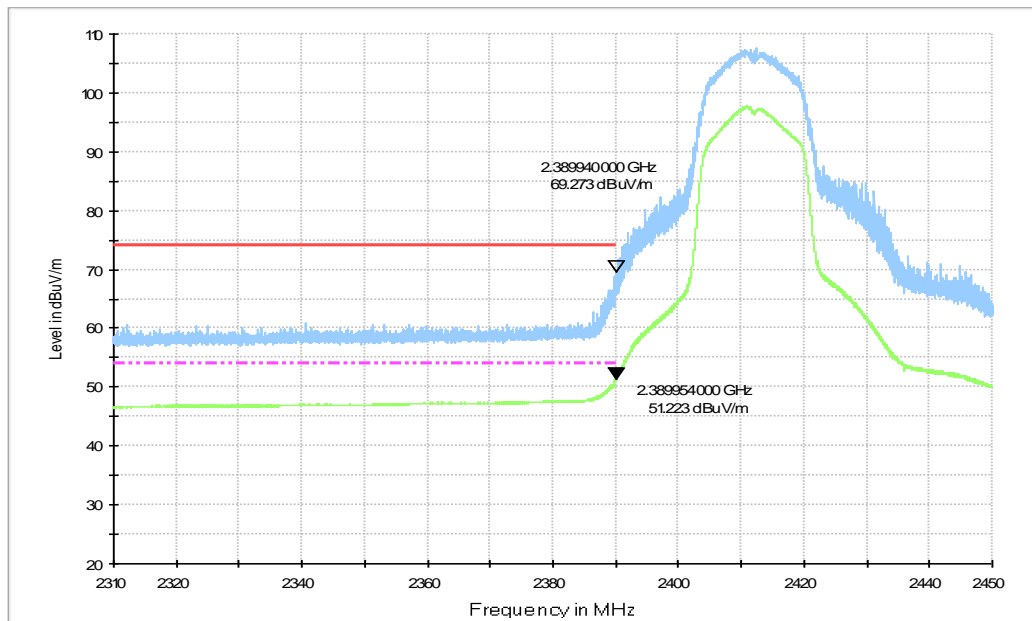


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.45GHz

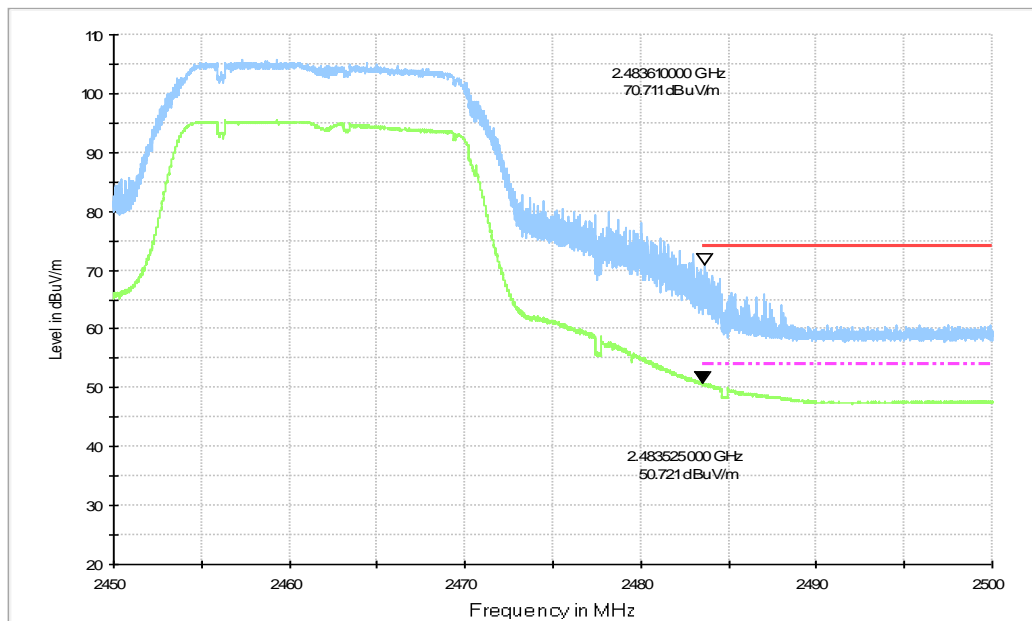


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

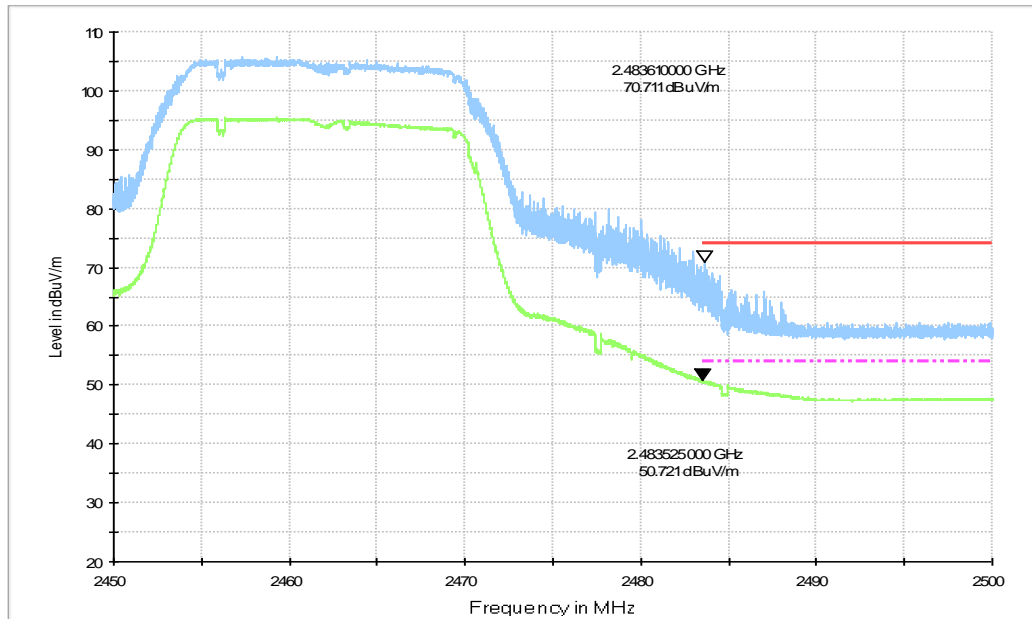


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch10, 2.45 GHz - 2.50GHz

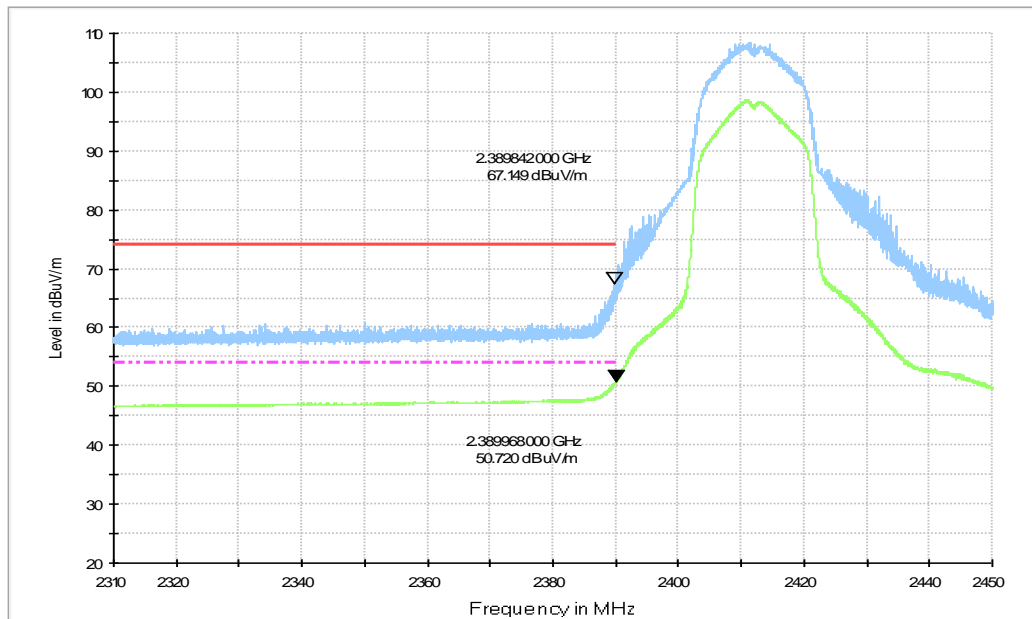


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.45GHz

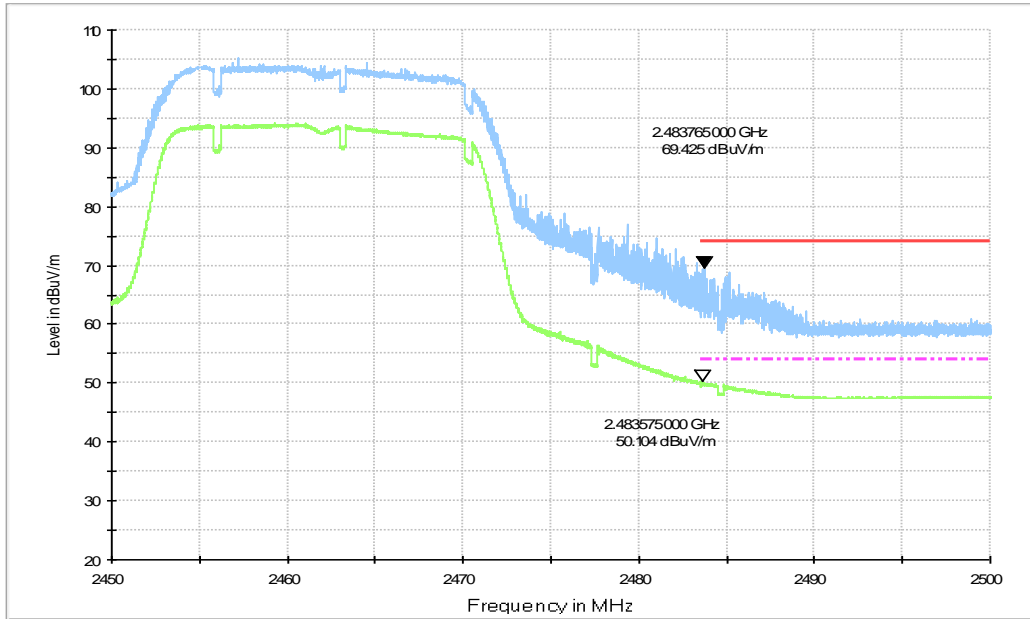


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

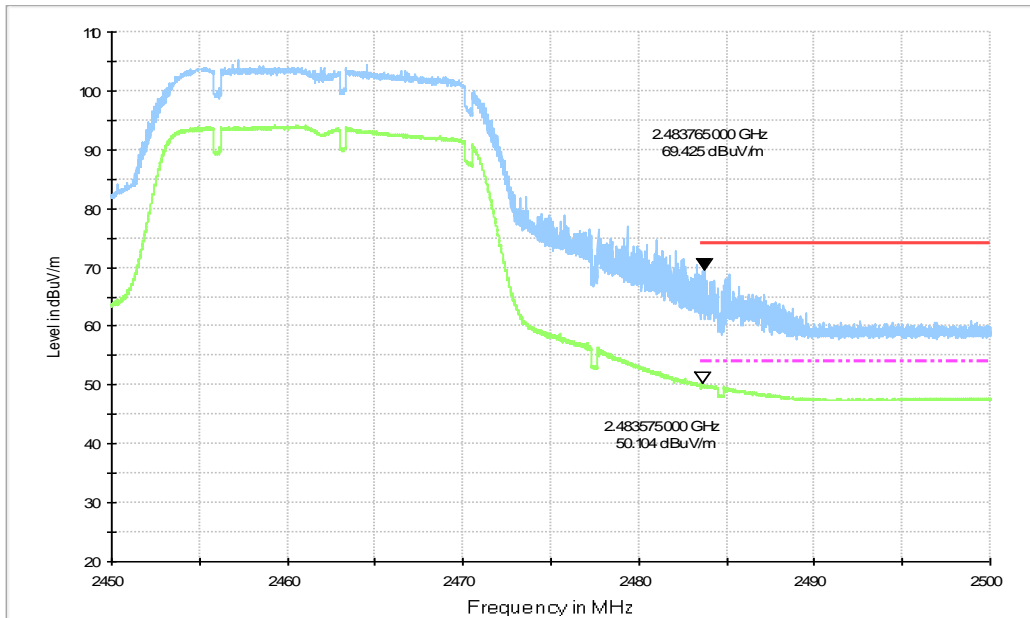


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch10, 2.45 GHz - 2.50GHz

A.7. AC Power-line Conducted Emission

Method of Measurement: See ANSI C63.10-2013-clause 6.2

See Clause 6.2 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

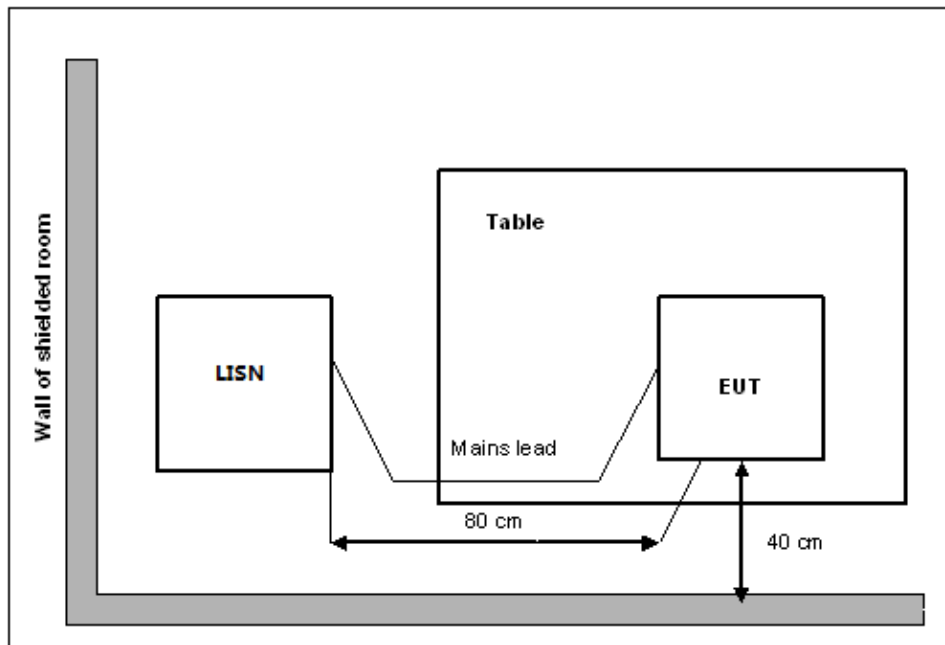
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Setup



Measurement Result and limit:
WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

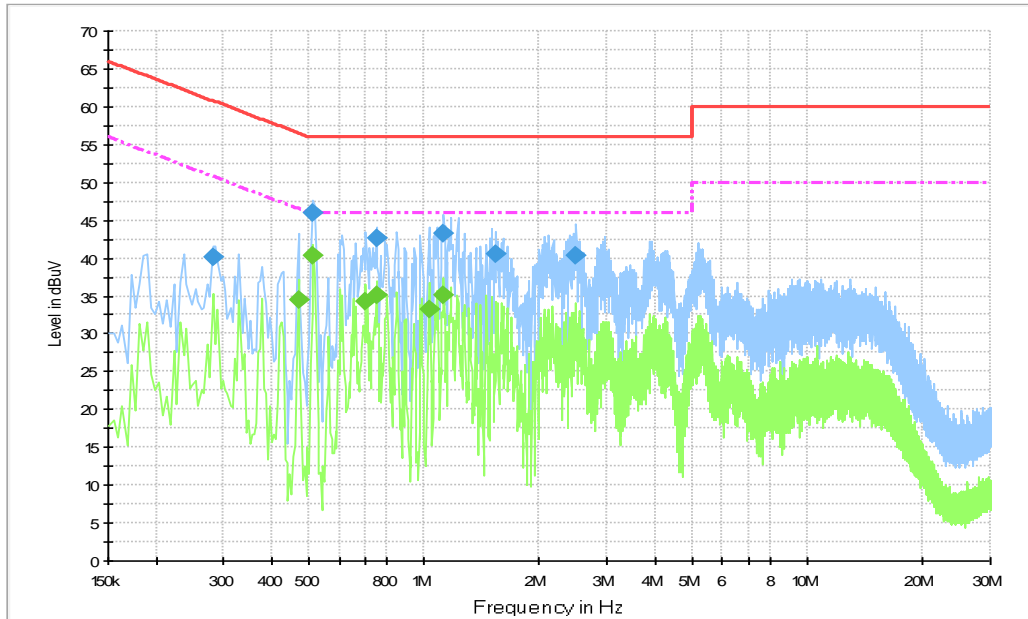
WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: Pass

Test graphs as below:

Result for Traffic:

Fig.A.7.1 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

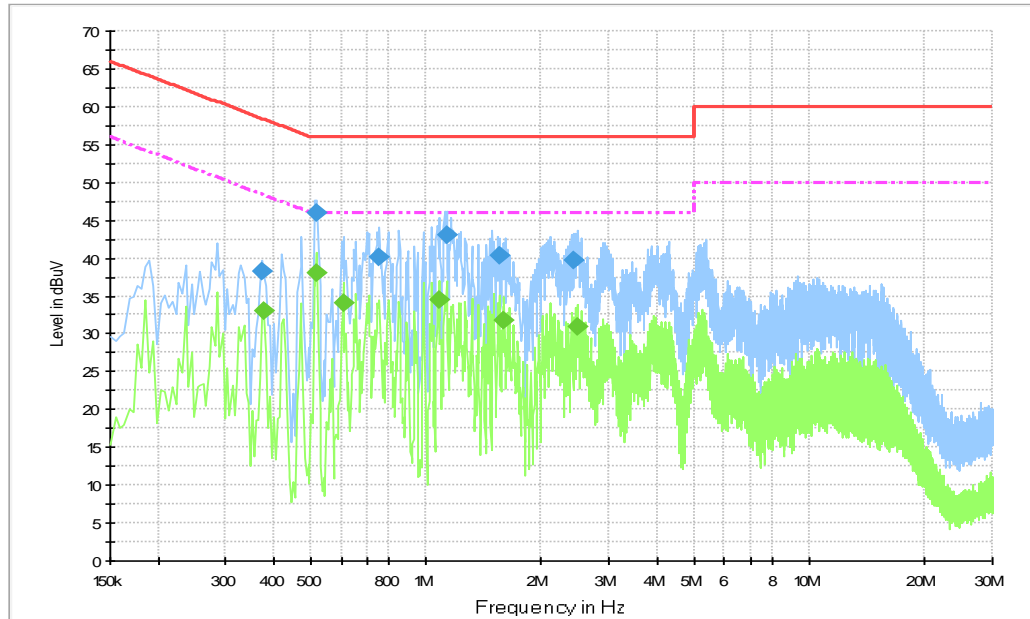
Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.280500	40.2	3000.	9.000	L1	19.7	20.6	60.8
0.514500	46.0	3000.	9.000	L1	19.8	10.0	56.0
0.753000	42.7	3000.	9.000	L1	19.7	13.3	56.0
1.126500	43.3	3000.	9.000	L1	19.7	12.7	56.0
1.536000	40.5	3000.	9.000	N	19.7	15.5	56.0
2.494500	40.4	3000.	9.000	L1	19.6	15.6	56.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.469500	34.4	3000.0	9.000	L1	19.8	12.1	46.5
0.514500	40.4	3000.0	9.000	N	19.8	5.6	46.0
0.703500	34.3	3000.0	9.000	L1	19.7	11.7	46.0
0.753000	35.0	3000.0	9.000	L1	19.7	11.0	46.0
1.027500	33.2	3000.0	9.000	L1	19.6	12.8	46.0
1.126500	35.1	3000.0	9.000	L1	19.7	10.9	46.0

Note: The measurement results showed here are worst cases of the combinations of different chargers.

Result for Idle:

Fig.A.7.2 AC Powerline Conducted Emission-Idle

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.375000	38.2	3000.	9.000	L1	19.8	20.2	58.4
0.519000	46.0	3000.	9.000	L1	19.8	10.0	56.0
0.757500	40.2	3000.	9.000	L1	19.7	15.8	56.0
1.131000	43.1	3000.	9.000	L1	19.7	13.0	56.0
1.549500	40.4	3000.	9.000	L1	19.7	15.6	56.0
2.431500	39.7	3000.	9.000	L1	19.7	16.3	56.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.379500	33.0	3000.0	9.000	L1	19.8	15.3	48.3
0.519000	38.0	3000.0	9.000	L1	19.8	8.0	46.0
0.609000	34.0	3000.0	9.000	L1	19.7	12.0	46.0
1.081500	34.6	3000.0	9.000	L1	19.7	11.4	46.0
1.599000	31.8	3000.0	9.000	L1	19.7	14.2	46.0
2.481000	30.8	3000.0	9.000	L1	19.6	15.2	46.0

Note: The measurement results showed here are worst cases of the combinations of different chargers.

ANNEX B: Accreditation Certificate

<p>United States Department of Commerce National Institute of Standards and Technology</p> <p>NVLAP® </p> <hr/> <p>Certificate of Accreditation to ISO/IEC 17025:2017</p> <hr/>	
<p>NVLAP LAB CODE: 600118-0</p>	
<p>Telecommunication Technology Labs, CAICT Beijing China</p>	
<p><i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i></p>	
<p>Electromagnetic Compatibility & Telecommunications</p>	
<p><i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).</i></p>	
<hr/> <p>2020-09-29 through 2021-09-30 <i>Effective Dates</i></p>	 <hr/> <p><i>[Signature]</i> For the National Voluntary Laboratory Accreditation Program</p>

END OF REPORT